DESCRIPTIONS OF NEW FISHES FROM PORT JACKSON.

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PETRAITES HEPTÆOLUS, sp. nov.

B. VI. D. 3/27/1-2. A. 2/18-2. V. 1/3. P. 12.

Length of the head 510, of caudal fin 63, height of body 43 in the total length. Diameter of eye 35 in the length of head. Snout short, \frac{1}{2} of a diameter of eye. Interorbital space slightly convex, ² of the same. Upper facial profile convex. Maxillary reaches to behind the middle of the orbit. A single small simple tentacle above each eye, and another, which is fringed, and widened out at the tip, on the anterior nostrils. Small teeth on both jaws, and on the vomer; the lower jaw with one or two small canines at the outer angles. The first dorsal is joined by a membrane to the second, it is a of the height of the body, and equal to the last spine of the second, in which there are but three rays, the anterior pair of which are separated by a broad membranous interspace, while the third is similarly joined to the root of the caudal. There is a corresponding interspace before the two last anal rays, but no membrane connecting the last ray with the tail; both these fins are highest posteriorly. The pectoral and ventral fins are equal in length, and 5 of that of the head. Caudal short, rounded. Scales exceedingly small.

Colours bright olive-green above, shading into the grey of the under parts. There are seven black spots on each side along the base of the dorsal fin, upon which they encroach a little when the fish is newly caught; the first spot is below the short dorsal; along the middle of the sides is a less conspicuous row of seven spots, the

first of which corresponds to the second of the upper row. There are also faint signs of an anal row. Opercles and under side of the head suffused with pink. Anal with several narrow dark vertical stripes, the intervening spaces speckled. Ventrals, pectorals, and caudal spotted with brown, and tipped with orange; the latter with a black spot at the upper terminal angle.

The above description is taken from a specimen, caught in Port Jackson on the 11th of last April, and measuring 3_{10}° inches.

Mr. Macleay (Cat. Aust. Fishes, Vol. II., p. 22), suggests the advisability of forming a new genus for the reception of his *Cristiceps fasciatus*, and certain other forms now placed indiscriminately in *Clinus* or *Cristiceps* as the author's fancy may dictate. With this suggestion I cordially agree, and propose therefore to form the genus *Peträites* for the reception of those homeless fishes, which oscillate between the two genera mentioned.

The genus would be thus characterized.

Petraites. gen. nov.

Branchiostegals six; body compressed, covered with small scales: Snout very short, cleft of the mouth small. A band of moderate teeth on the jaws; lower jaw with a strong curved canine at either angle; vomerine teeth present: palate edentulous. First dorsal fin low, attached by a membrane to the second. Dorsal slightly contiguous with the caudal.

Type specimen in Australian Museum; registered number B. 6699.

PLATYCEPHALUS MACRODON. sp. nov.

B. VII. D. 1/7/14. A. 14. V. 1/5. P. 8/14. L. lat. 73. L. trans. 10/20

Length of head $3\frac{1}{3}$, of caudal fin $7\frac{1}{4}$, height of body $8\frac{6}{10}$ in the total length. Diameter of eye $5\frac{1}{3}$ in the length of head, $1\frac{1}{4}$ in that of snout, which is narrow and but moderately depressed. Interorbital space slightly concave, $\frac{2}{3}$ of the diameter of eye. Width of the head immediately in front of the eyes $2\frac{6}{5}$, inside the preopercular spines $1\frac{6}{5}$ in its length. Maxillary extends to below

the middle of the orbit. Supraorbital with a single minute anterior spine. Snout with numerous smooth ridges, which are very faint on the interorbital space. A low, irregular, sometimes double, ridge runs from a little behind the middle of the upper margin of the orbit to the hinder edge of the cranium, and bears a few small spines. A similar ridge along the upper edge of the opercles terminates at the origin of the lateral line, and is also spiniferous. Two moderately sized spines, of which the upper is the more projecting, point forwards from the lower anterior angle of each preorbital, behind which rise two prominent smooth parallel ridges which terminate at the preopercular angle in strong flattened spines, the lower of which is much the longer. Two compressed opercular spines, almost hidden beneath the cuticle. A short blunt spine on the suboperculum, which bears no flaps. Anterior nostril with a short broad fringed tentacle. Lower jaw the longer. Maxilla with a broad band of villiform teeth, and a longitudinal row of three strong incurved canines, on either side of the symphysis, the anterior being much the smallest. The mandibular and palatine bands are much narrower, and are interspersed with strong canines, pointing inwards, and placed at regular intervals. A crescentic band of conical teeth on the head of the vomer, the strongest on the outside. First dorsal spine short and isolated; the second the longest, 21 in the length of head; soft dorsal highest anteriorly, nowhere so high as the spinous. Pectoral short, 1 the length of head, eight lower rays simple. Three inner rays of ventrals rather elongate, 2 of the length of head, and reaching to second anal ray. Anal commences beneath the third dorsal ray. Caudal short, truncated. Lateral line smooth.

Colours bright golden brown, except on the flat lower surface, which, with the anal fin, is colorless. There are numerous small bluish spots above the lateral line. Dorsals hyaline, the spines and rays spotted with golden brown. Pectorals and ventrals similarly spotted on a lead-coloured ground. Caudal with large basal golden spots, and a broad dusky marginal band.

The example from which I have taken the above description is a female, and has the ova about half developed. It measures a little over 13 inches, and was trawled in Port Jackson on the 25th April. The stomach contained an *Atherina pinguis*, 4 inches long, among other irrecognisable matter.

Type specimen in Australian Museum; registered number B. 6,541.

Percis novæ-cambriæ. sp. nov.

B. VI. D. 4/24-25. A. 20. V. 1/5 P. 17. L. lat. 65. L. trans. $3\frac{1}{9}/13$.

Length of head $4\frac{1}{2}$, of caudal fin $6\frac{2}{5}$, height of body $7\frac{3}{4}$ in the total length. Diameter of eye about \$\frac{1}{4}\$ of the length of the head, equal to the length of the snout, and more than double the interorbital space, which is flat. The greatest width of the head is equal to its length behind the anterior margin of the orbit; the greatest height to half its length. Snout rather blunt; cleft of mouth slightly oblique; lower jaw a little the longer; maxillary reaches to beyond the vertical from the middle of the eye. preoperculum is furnished with some coarse serrations on the hinder limb, and especially at the angle; these however, seem to disappear with age. A single blunt opercular spine. The jaws are armed with a broad band of villiform teeth, the outer row of which is somewhat the larger; also with 4 or 5 strong curved canines on each side of the symphyses, and a similar row at the posterior end of each jaw, those in the lower being the strongest; there is also a lunate patch of villiform teeth on the vomer. Fourth dorsal spine the longest, 5 of the diameter of eve; the third but little shorter. The pectoral is equal to 4 of the length of the head; the ventral which is not quite so long does not reach the vent. rounded.

Colors, (in spirits) above yellowish-brown, with very indistinct darker marblings; head darker than body; sides and belly yellowish. Seven large dark brown spots below the lateral line, and approximating to the ventral profile. A narrow brown band from above the root of the pectoral to the upper part of the caudal fin, where it disappears in a round nearly black spot, which is continued

downwards, of a lighter shade, across the base of the rays, and along the lower margin of the fin in a darker band, and finally passes up the terminal margin in a narrow band; remainder of caudal and pectorals yellowish. First dorsal with a black blotch covering the greater part of the fin; second with narrow oblique alternate light and dark bars; anal tipped with blackish, and with vermiculations of the same color on the hyaline basal half. Ventrals dusky.

The above description is taken from two Port Jackson examples, which have long been in the Australian Museum collection, labelled as *Percis nebulosa*, but which differ essentially from that species. They are now in our type collection; registered numbers B. 6.696-97.

I am also constrained to describe as new a species of Latris, which was sent up from the markets a few days since, and which differs in several material points from any of those catalogued by Mr. Macleay. I may mention here that in Castelnau's descriptions of the three forms differentiated by him, he omits all mention of two points which are of great importance in this genus, namely, the number of simple pectoral rays and the presence or absence of vomerine teeth. The following is a description of the specimen, which measures 21½ inches and is in the Museum collection, its registered number being B. 7024.

Latris Ramsayi. sp. nov.

B. VI. D. 18/38. A. 3/33. V. 1/5. P. 10/8. L. lat. 103. L. trans. about 10/24.

Length of head $4\frac{3}{8}$, of caudal fin $4\frac{4}{5}$, height of body $3\frac{7}{10}$ in the total length. Diameter of eye $\frac{2}{5}$ of length of head, $\frac{4}{7}$ of snout, and $\frac{9}{7}$ of interorbital space, which is convex. Upper part of snout much swollen. Maxilla reaches to the vertical from the posterior nostril. Preoperculum without cilia. A broad simple skinny flap behind the anterior nostril. Lips fleshy. Lower jaw with a single row of short conical teeth, many of which are wanting in our specimen. Upper jaw with an outer band of strong subulate teeth, and indications of smaller teeth just piercing the skin

behind; no vomerine or palatine teeth. The fourth to seventh dorsal spines are about equal and longest, $\frac{1}{3}$ of the length of the head; the first spine is quite separate from the second, and equal to the 17th, which is much shorter than the last; the anterior rays the longest, longer than any of the spines. Anal spines very short, the 3rd much the longest, only $\frac{2}{5}$ of the length of the anterior rays. Pectoral fins $\frac{5}{7}$ of the length of head, its eight lower rays are simple, and shorter than the branched rays. Ventrals short, originating beneath the 9th dorsal spine, not nearly reaching to the vent, and $\frac{5}{9}$ of the length of head. Caudal deeply forked, lobes equal. Scales small, covering the entire head except the mandibulary and anteorbital regions, and the snout in front of the nostrils; the bases of the dorsal, anal, and pectoral fins, and the greater part of the caudal are scaly.

Colours. The upper parts are brown, and shade down into ashy-grey on the sides, both being marked with numerous narrow longitudinal rather indistinct dull yellow bands. A broad light coloured band across the occiput. Lips yellowish-white; inside of mouth blotched with black and white. Vertical fins brown with indistinct lighter blotches. Caudal margined with black, and with a lighter sub-terminal stripe.

It may be as well to call attention here to the following differences between this fish and the genus *Latris*, as constituted by Dr. Gunther. (Cat., Vol. II., p. 86; and Study of Fishes, p. 412.) The left hand column pertains to Gunther's *Latris*, the right hand to the present fish.

Spinous dorsal with 17 spines. Spinous dorsal with 18 spines.

Teeth villiform in both jaws. No villiform teeth.

Preoperculum minutely ciliated. Preoperculum entire.